



6560-50-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R03-OAR-2015-0788; FRL- 9945-80-Region 3]**

**Approval and Promulgation of Air Quality Implementation Plans; Maryland; Reasonable Further Progress Plan, Contingency Measures, Motor Vehicle Emissions Budgets for the Baltimore 1997 8-Hour Ozone Serious Nonattainment Area**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve the serious nonattainment area reasonable further progress (RFP) plan for the Baltimore serious nonattainment area for the 1997 8-hour ozone national ambient air quality standard (NAAQS). The SIP revision includes 2011 and 2012 RFP milestones, contingency measures for failure to meet RFP, and updates to the 2002 base year inventory and the 2008 reasonable RFP plan previously approved by EPA. EPA is also proposing to approve the transportation conformity motor vehicle emissions budgets (MVEBs) associated with this revision. This action is being taken under the Clean Air Act (CAA).

**DATES:** Written comments must be received on or before **[insert date 30 days after date of publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R03-OAR-2015-0788 at <http://www.regulations.gov>, or via email to [fernandez.cristina@epa.gov](mailto:fernandez.cristina@epa.gov). For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of

submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the “For Further Information Contact” section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Maria A. Pino, (215) 814-2181, or by e-mail at [pino.maria@epa.gov](mailto:pino.maria@epa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Background**

#### **A. The Baltimore Area**

In 1997, EPA revised the health-based NAAQS for ozone, setting it at 0.08 parts per million (ppm) averaged over an 8-hour time frame.<sup>1</sup> EPA set the 8-hour ozone standard based on scientific evidence demonstrating that ozone causes adverse health effects at lower ozone concentrations and over longer periods of time than was understood when the pre-existing

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<sup>1</sup>EPA revoked the 1997 8-hour ozone NAAQS, effective April 6, 2015. *See* 80 FR 12264 (March 06, 2015). EPA revised the ozone NAAQS in both 2008 and 2015. EPA lowered the level of the 8-hour NAAQS to 0.075 ppm and then 0.070 ppm. *See* 73 FR 16483 (March 27, 2008) and 80 FR 65291 (October 26, 2015). This SIP revision does not address the 2008 and 2015 ozone NAAQS

1-hour ozone standard was set. EPA determined that the 8-hour standard would be more protective of human health, especially children and adults who are active outdoors, and individuals with a pre-existing respiratory disease, such as asthma.

On April 30, 2004, EPA finalized its attainment/nonattainment designations for areas across the country with respect to the 1997 8-hour ozone standard. 69 FR 23858. These actions became effective on June 15, 2004. Among those nonattainment areas was the Baltimore, Maryland moderate nonattainment area (the Baltimore Area). The Baltimore Area includes Baltimore City and Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties, which are all in Maryland.

Pursuant to Phase 1 of the 8-hour ozone implementation rule for the 1997 8-hour ozone NAAQS, an area was classified under Subpart 2 of the CAA based on its 8-hour design value if that area had a 1-hour design value at or above 0.121 ppm (the lowest 1-hour design value in Table 1 of Subpart 2). *See* 69 FR 23951 (April 30, 2004). Based on this criterion, the Baltimore Area was classified under Subpart 2 as a moderate nonattainment area. Moderate areas were required to attain the 1997 8-hour ozone NAAQS within 6 years of designation, or by June 15, 2010.

The Baltimore Area did not attain the 1997 8-hour ozone NAAQS by June 2010. However, the area was eligible for a one-year extension of its attainment date, from June 15, 2010 to June 15, 2011. EPA granted that attainment date extension on March 11, 2011. 76 FR 13289. The extension was based on the air quality data for the 4th highest daily 8-hour monitored value during the 2009 ozone season.

The Baltimore Area also did not attain the 1997 8-hour ozone NAAQS by June 2011. The area did not qualify for a second one-year extension of its attainment date, based on air quality data monitored during the 2009 and 2010 ozone seasons. Therefore, on February 1, 2012, EPA made a determination that the Baltimore Area did not attain the 1997 8-hour ozone NAAQS by its attainment date. 77 FR 4901. As a result of this determination, the Baltimore Area was reclassified by operation of law as a serious 8-hour ozone nonattainment area for the 1997 8-hour ozone standard. *See* 40 CFR 81.321. Consequently, the State of Maryland was required to submit SIP revisions for the Baltimore Area to meet the CAA requirements for serious ozone nonattainment areas. EPA set the due date for the serious area SIP revision as no later than September 30, 2012. The serious area attainment date for the Baltimore Area was as expeditiously as practicable, but not later than June 15, 2013. MDE submitted its July 22, 2013 SIP revision request, the Baltimore 8-hour Serious Area Plan, pursuant to this requirement.

On May 26, 2015, EPA determined that the Baltimore Area attained the 1997 8-hour ozone NAAQS, based on monitored ambient air quality data for the 2012–2014 monitoring period. 80 FR 29970. Under the provisions of EPA’s ozone implementation rule (40 CFR 51.918), when EPA issues a determination that an area is attaining the relevant standard, that determination suspends the area’s obligations to submit an attainment demonstration, reasonably available control measures (RACM), RFP plan, contingency measures and other planning requirements under part D of title I of the CAA related to attainment of the 1997 8-hour ozone NAAQS for as

long as the area continues to attain the standard.<sup>2</sup> Preliminary (i.e., not yet quality assured or certified) monitoring data for the 2013-2015 monitoring period indicates that the Baltimore Area continues to attain the 1997 8-hour ozone NAAQS.<sup>3</sup> Although the requirement to submit these plan elements is suspended, EPA is not precluded from acting upon these elements at any time if a state still submits them to EPA for review and approval. Therefore, the requirement for Maryland to submit certain serious area SIP elements pursuant to sections 172 and 182 of the CAA has been suspended. However, Maryland had already submitted its July 22, 2013 serious area SIP revision, and MDE requested that EPA act on the RFP plan, RFP contingency measures, MVEBs and emission inventories contained in the SIP revision submittal. EPA is proposing to approve these elements as SIP strengthening measures pursuant to section 110 of the CAA. Considering the most recent ambient air quality monitoring data, the Baltimore Area continues to meet the 1997 8-hour ozone NAAQS.

## B. Serious Area Requirements

Section 182 of the CAA and EPA's 1997 8-hour ozone regulations (40 CFR 51.910) require each moderate and above 8-hour ozone nonattainment area to submit an emissions inventory and RFP SIP revision that describes how the area will achieve actual emissions reductions of volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) from a baseline emissions inventory. An emissions inventory is an estimation of actual emissions of air pollutants in an area. The

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<sup>2</sup> Pursuant to 40 CFR 51.918, "[u]pon a determination by EPA that an area designated nonattainment for the 8-hour ozone NAAQS has attained the standard, the requirements for such area to submit attainment demonstrations and associated reasonably available control measures, reasonable further progress plans, contingency measures, and other planning SIPs related to attainment of the 8-hour ozone NAAQS shall be suspended until such time as: the area is redesignated to attainment, at which time the requirements no longer apply; or EPA determines that the area has violated the 8-hour ozone NAAQS."

<sup>3</sup>The Preliminary 2013-2015 Baltimore Monitoring Ozone Data Report can be found online at <http://www.regulations.gov>, Docket number EPA-R03-OAR-2015-0788.

emissions inventory for an ozone nonattainment area contains VOC and NO<sub>x</sub> emissions, which are precursors to ozone formation. In this case, a “baseline” emissions inventory is required for the year 2002. *See* EPA’s Phase 2 Final Rule for Implementation of the 8-hour Ozone Standard (Phase 2 Rule), 70 FR 71612, 71615 (November 29, 2005).

EPA’s Phase 1 Final Rule for Implementation of the 8-hour Ozone Standard (Phase 1 Rule), published on April 30, 2004, set out criteria for classifying nonattainment areas under the 1997 8-hour ozone standard. 69 FR 23951. The Phase 1 Rule also addressed revocation of the 1-hour ozone NAAQS; how anti-backsliding principles will ensure continued progress toward attainment of the 8-hour ozone NAAQS; attainment dates; and the timing of emissions reductions needed for attainment. On November 29, 2005, EPA published the Phase 2 Rule. 70 FR 71612. The Phase 2 Rule addressed the RFP control and planning obligations as they apply to areas designated nonattainment for the 1997 8-hour ozone NAAQS. The Phase 2 Rule was revised on June 8, 2007. 72 FR 31727. Among other things, the Phase 1 and 2 Rules outline the SIP requirements and deadlines for various requirements in areas designated as nonattainment for the 1997 8-hour ozone NAAQS. The rules set a due date of June 15, 2007 for the required base year emission inventory, RFP plan, modeling and attainment demonstration, RACM, MVEBs, and contingency measures (40 CFR 51.908(a), (c)).

### C. The Moderate Area Plan

On June 4, 2007, Maryland submitted a comprehensive SIP revision request to address moderate area ozone requirements for the Baltimore Area. That 2007 “Moderate Area Plan” SIP revision request included the 2002 base year emissions inventory, a 2008 RFP plan, including a 2008

ozone projected emission inventory, a RACM analysis, an attainment demonstration (including modeling and weight of evidence), a 2009 attainment year inventory, contingency measures for RFP and attainment, and 2008 and 2009 MVEBs for the Baltimore Area. On June 4, 2010, EPA approved the 2002 base year inventory, RFP plan up to 2008, RFP contingency measures, RACM demonstration, and 2008 MVEBs associated with the 2007 moderate area SIP revision submittal. 75 FR 31709.

#### D. The Serious Area Plan

On July 22, 2013, the Maryland Department of the Environment (MDE) submitted the SIP revision, “Baltimore Serious Nonattainment Area 0.08 ppm 8-Hour Ozone State Implementation Plan Demonstrating Rate of Progress for 2008, 2011 and 2012 Revision to 2002 Base Year Emissions; and Serious Area Attainment Demonstration, SIP Number: 13-07,” (the Serious Area Plan). That SIP revision submittal included updates to the 2002 base year emissions inventory and 2008 RFP plan that EPA previously approved into the Maryland SIP, RFP for 2011 and 2012, an attainment demonstration, including modeling and weight of evidence, RFP and attainment contingency measures, a RACM determination, and 2012 MVEBs. After EPA determined Baltimore had attained the 1997 8-hour ozone standard, Maryland, by letter dated October 20, 2015, withdrew the attainment demonstration, including modeling and weight of evidence, contingency measures for attainment, and the RACM analysis from consideration as a SIP revision. Therefore, those elements are not addressed in this rulemaking action.

## **II. Summary of SIP Revision and EPA Evaluation**

EPA’s analysis and findings are discussed in this proposed rulemaking, and a more detailed

discussion is contained in the Technical Support Documents (TSD) for this proposed rulemaking action, which is available online at <http://www.regulations.gov>, Docket number EPA-R03-OAR-2015-0788.

## A. Base Year Emissions Inventory

### 1. Requirement

An emissions inventory is a comprehensive, accurate, and current inventory of actual emissions from all sources. The emissions inventory is required by section 172(c)(3) of the CAA. For ozone nonattainment areas, the emissions inventory needs to contain VOC and NO<sub>x</sub> emissions because these pollutants are precursors of ozone. EPA recommended 2002 as the base year emissions inventory, which is therefore the starting point for calculating RFP. Maryland submitted its 2002 base year emissions inventory for the Baltimore Area in its 2007 moderate area plan. EPA approved that inventory on June 4, 2010 (75 FR 31709).

### 2. State Submittal and EPA Evaluation

In its Serious Area Plan for the Baltimore area, Maryland updated the 2002 base year inventory. The update was needed to reflect the change to EPA's approved model for onroad mobile sector emissions, from the Mobile Source Emission Factor Model (MOBILE) to the Motor Vehicle Emission Simulator (MOVES) model, as well as updates to EPA's NONROAD model. The updated 2002 base year inventory is discussed in Section 3 of Maryland's Serious Area Plan.

A summary of the approved and updated Baltimore Area 2002 base year VOC and NO<sub>x</sub> emissions inventories are included in Table 1. EPA notes that the updates to the onroad and

nonroad emissions result in a lower total base year emissions inventory for VOCs, and a higher total for NO<sub>x</sub>.

**Table 1. Comparison of SIP Approved Versus Updated Baltimore Area 2002 Base Year VOC and NO<sub>x</sub> Emissions (Ozone Season Tons per Day (tpd))**

Emission Source Category	VOC		NO <sub>x</sub>	
	SIP Approved	Updated	SIP Approved	Updated
Point	13.88	13.88	111.88	111.89
Stationary Area	116.81	116.81	8.18	8.18
Nonroad Mobile	70.22	59.61	40.96	49.18
Onroad Mobile	70.57	72.48	177.06	202.22
<b>Total (excluding Biogenic Emissions)</b>	<b>271.48</b>	<b>262.77*</b>	<b>338.08</b>	<b>371.47</b>
Biogenic Emissions	223.20	223.20	0	0

\*Note: The 2002 updated data is pulled from Table 5-1 in the Serious Area Plan. With that table, MDE states, “Small discrepancies may result due to rounding.”

EPA reviewed Maryland’s updates to its 2002 base year inventory for the Baltimore Area using the appropriate EPA policy and guidance, and found MDE’s procedures, methodologies, and results for the Baltimore Area 2002 base year inventory to be reasonable. A detailed evaluation of the emissions inventories contained in the Serious Area Plan is contained in a separate November 9, 2015 technical support document, entitled “Technical Support Document (TSD) for the Baltimore Nonattainment Area 8-Hour Ozone State Implementation Plan: Demonstrating Rate of Progress for 2008, 2011, and 2012; Revision to 2002 Base Year Emissions; and Serious Area Attainment Demonstration,” (the Baltimore Serious Area Emissions Inventory TSD), which is available online at <http://www.regulations.gov>, Docket number EPA-R03-OAR-2015-0788. EPA thus proposes to approve the revised 2002 emissions inventory.

## B. Adjusted Base Year Inventory, 2008 RFP Target Levels, and Determination of 2008 RFP

### 1. Requirement

The Baltimore Area was originally classified as moderate for the 1997 8-hour ozone NAAQS. As such, the CAA requires a 15 percent (%) reduction in ozone precursor emissions over an initial 6-year period. In the Phase 2 Rule, EPA interpreted this requirement for areas that were also designated nonattainment and classified as moderate or higher for the 1-hour ozone standard. In the Phase 2 Rule, EPA provided that an area classified as moderate or higher that has the same boundaries as an area, or is entirely composed of several areas or portions of areas, for which EPA fully approved a 15% plan for the 1-hour ozone NAAQS, is considered to have met the requirements of section 182(b)(1) of the CAA for the 8-hour NAAQS for the 15% reduction in ozone precursor emissions. In this situation, a moderate nonattainment area is subject to RFP under section 172(c)(2) of the CAA and shall submit, no later than 3 years after designation for the 8-hour NAAQS, a SIP revision that meets the requirements of 40 CFR 51.910(b)(2) for RFP. The RFP SIP revision must provide for a 15% emission reduction (either NO<sub>x</sub> and/or VOC) accounting for any growth that occurs during the 6-year period following the baseline emissions inventory year, that is, 2002-2008.

The Baltimore Area was classified as severe under the 1-hour ozone standard, and had the same boundary as the Baltimore Area under the 1997 8-hour ozone standard. On July 12, 1995, Maryland submitted a 15% Plan SIP revision for the Baltimore Area. On February 2, 2000, EPA approved Maryland's 15% plan for the Baltimore severe 1-hour ozone nonattainment area. 65 FR 5252. Therefore, according to the Phase 2 Rule, the RFP plan for the Baltimore Area may use either NO<sub>x</sub> or VOC emissions reductions (or both) to achieve the 15% emission reduction requirement.

## 2. State Submittal and EPA Evaluation

On June 4, 2010, EPA approved Maryland's moderate area RFP that provided for a 15% emissions reduction from 2002 to 2008, contained in the Moderate Area Plan. 75 FR 31709. Maryland, however, needed to update the 2008 target levels for its Serious Area Plan because they are the basis for the new 2011 and 2012 target level calculations for RFP. In the Serious Area Plan, MDE updated its 15% RFP plan to reflect EPA's change from MOBILE to MOVES for onroad emission modeling and updates to EPA's NONROAD model.

### a. Adjusted Base Year Inventory, 2008 RFP Target Levels

Maryland set out its calculations for the adjusted base year inventory and 2008 RFP target levels in Section 5 of Maryland's Serious Area Plan. EPA previously approved 2008 RFP for the Baltimore Area. *See* 75 FR 31709 (June 4, 2010). EPA required MDE to update the 2008 target levels for RFP so that they could be used to calculate the 2011 and 2012 target levels in the Serious Area Plan. In the TSD prepared for this rulemaking action, EPA reviewed the revised 2008 target levels calculations in the Serious Area Plan, summarized in Table 2, and determined that they were done correctly and are approvable.

**Table 2. Baltimore Area 2008 RFP Target Level Calculations (Ozone Season tpd)**

Description		Formula	VOC	NO <sub>x</sub>
A	2002 Adjusted Base Year Inventory Relative To 2008		258.69	369.69
B	RFP Ratio		0.0800	0.0700
C	Emissions Reductions Required Between 2002 & 2008	A * B	20.70	25.88
D	Target Level for 2008	A - C	238.00	343.81

### b. Projected 2008 Inventories and Determination of RFP

Maryland describes its methods used for developing its 2008 projected VOC and NO<sub>x</sub> inventories in Section 4 and Appendix A of the Serious Area Plan. Projected controlled 2008

emissions for the Baltimore Area are summarized in Tables 4-5 of the Serious Area Plan, and are presented in Table 3. EPA reviewed the procedures Maryland used to develop its projected inventories and found them to be reasonable. For more information on EPA's analysis in proposing to approve the projected inventories, please see the Baltimore Serious Area Emissions Inventory TSD.

**Table 3. Baltimore Area 2008 Projected Controlled VOC and NO<sub>x</sub> Emissions (Ozone Season tpd)**

Source Category	VOC Emissions	NO <sub>x</sub> Emissions
Point	15.63	122.64
Area	108.17	8.43
Non-road	44.04	42.85
Mobile	50.12	125.69
Total	<b>217.96</b>	<b>299.62</b>

To determine if 2008 RFP is met in the Baltimore Area, the total projected controlled emissions must be compared to the 2008 target levels of emissions. As shown in Table 4, the Serious Area Plan demonstrates that sufficient emission reductions occurred between 2002 and 2008 to meet the 2008 RFP target levels. Thus, EPA proposes to approve the Baltimore Area's revised 2008 RFP.

**Table 4. Comparison of the 2008 RFP Measure Target Levels versus Projected Controlled Emissions in the Baltimore Area (Ozone Season tpd)**

Description		VOC Emissions	NO <sub>x</sub> Emissions
A	Total 2008 Projected Controlled Emissions	217.96	299.62
B	Target Level for 2008	238.00	343.81
<b>RFP is met if A &lt; B</b>		<b>Yes</b>	<b>Yes</b>

#### C. 2011 and 2012 RFP Target Levels and Determination of RFP

##### 1. Requirement

Serious 8-hour ozone nonattainment areas are subject to RFP requirements in section 182(c)(2)(B) of the CAA that require an average of 3% per year of VOC and/or NO<sub>x</sub> emissions reductions for all remaining 3-year periods after the first 6-year period out to the area's attainment date (2008-2011, and 2011-2012). For a serious area, such as the Baltimore Area, with an approved 15% rate of progress (ROP) plan under the 1-hour standard, states can use reductions from VOC or NO<sub>x</sub> or a combination of either.

2011 and 2012 target levels are calculated in the same manner as the 2008 targets, except that the baseline is the previous target level, not the 2002 base year inventory. The 2008 target levels are thus used as the basis for calculating 2011 targets. Similarly, 2011 target levels are used to calculate the 2012 targets.

## 2. State Submittal and EPA Evaluation

### a. Adjusted Base Year Inventories, 2011 and 2012 RFP Target Levels

2011 and 2012 RFP calculations can be found in Sections 6 and 7 of the Serious Area Plan, respectively. In the TSD prepared for this rulemaking action, EPA reviewed the 2011 and 2012 target levels calculations in the Serious Area Plan, summarized in Table 5, and determined that they were done correctly and are approvable and therefore EPA proposes to approve them.

**Table 5. Baltimore Area 2011 & 2012 RFP Target Level Calculations (Ozone Season tpd)**

<b>2011 Target</b>				
<b>Description</b>		<b>Formula</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>
A	2008 Adjusted Base Year Inventory Relative To 2011		237.71	343.81
B	RFP Ratio		0.0600	0.0300
C	Emissions Reductions Required Between 2008 & 2011	A * B	14.28	10.31
D	Target Level for 2011	A - C	223.72	333.49
<b>2012 Target</b>				

Description		Formula	VOC	NO <sub>x</sub>
A	2011 Adjusted Base Year Inventory Relative To 2012		223.73	333.32
B	RFP Ratio		0.0150	0.0150
C	Emissions Reductions Required Between 2011 & 2012	A * B	3.36	5.00
D	Target Level for 2012	A - C	220.38	328.49

b. Projected 2011 and 2012 Inventories and Determination of RFP

Maryland describes its methods used for developing its 2011 and 2012 projected VOC and NO<sub>x</sub> inventories in Section 4.0 and Appendix A of the Serious Area Plan. Projected 2011 and 2012 VOC and NO<sub>x</sub> emissions are found in Appendix A of the Baltimore Serious Area Plan. EPA reviewed the procedures Maryland used to develop its projected inventories and found them to be reasonable. For details on EPA's analysis, see the Baltimore Serious Area Emissions Inventory TSD.

Projected controlled 2011 and 2012 emissions for the Baltimore Area are summarized in the Serious Area Plan, in Tables 4-6 and 4-7, respectively. That data is presented in Table 6.

**Table 6. Baltimore Area 2011 and 2012 Projected Controlled VOC & NO<sub>x</sub> Emissions (Ozone Season tpd)**

Source Category	2011		2012	
	VOC Emissions	NO <sub>x</sub> Emissions	VOC Emission	NO <sub>x</sub> Emissions
Point	16.79	95.21	17.19	94.79
Area	106.07	8.54	106.79	8.56
Non-road	38.26	38.12	35.69	36.05
Mobile	44.54	104.62	40.23	93.47
Total	<b>205.65</b>	<b>246.48</b>	<b>199.90</b>	<b>232.88</b>

To determine if 2011 and 2012 RFP is met in the Baltimore Area, the total projected controlled emissions must be compared to the target levels calculated in the previous section of this rulemaking. As shown in Table 7, the Serious Area Plan demonstrates that sufficient emission

reductions occurred between 2008 and 2011 and between 2011 and 2012 to meet the 2011 and 2012 RFP target levels. Therefore, the Serious Area Plan demonstrates 2011 and 2012 RFP in the Baltimore Area, and EPA proposes to approve the 2011 and 2012 RFP in the Serious Area Plan.

**Table 7. Comparison of the 2011 and 2012 RFP Measure Target Levels versus Projected Controlled Emissions in the Baltimore Area (Ozone Season tpd)**

<b>2011 RFP</b>			
<b>Description</b>		<b>VOC Emissions</b>	<b>NO<sub>x</sub> Emissions</b>
A	Total 2011 Projected Controlled Emissions	205.65	246.48
B	Target Level for 2011	223.72	333.49
<b>RFP is met if A &lt; B</b>		<b>Yes</b>	<b>Yes</b>
<b>2012 RFP</b>			
<b>Description</b>		<b>VOC Emissions</b>	<b>NO<sub>x</sub> Emissions</b>
A	Total 2012 Projected Controlled Emissions	199.90	232.88
B	Target Level for 2012	220.38	328.49
<b>RFP is met if A &lt; B</b>		<b>Yes</b>	<b>Yes</b>

#### D. Control Measures and Emission Reductions for RFP

##### 1. Requirement

Emission reductions to meet RFP must be from permanent and enforceable emission control measures.

##### 2. State Submittal and EPA Evaluation

The control measures for which Maryland took credit in order to meet the RFP requirement in the Baltimore Area are described in Section 8 of the Serious Area Plan. To meet the RFP requirement for the Baltimore Area, Maryland used a combination of point, onroad mobile, nonroad mobile, and area source control measures as described in this section of this rulemaking action.

a. Onroad Mobile Measures

The onroad mobile measures Maryland used to meet RFP in the Baltimore Area include enhanced vehicle inspection and maintenance (enhanced I/M), Tier I vehicle emission standards and new federal evaporative test procedures (Tier I), reformulated gasoline, the national low emission vehicle (NLEV) program, and the federal heavy-duty diesel engine (HDDE) rule. Maryland calculated the emission reductions for 2008, 2011, and 2012 RFP using the MOVES model for these onroad mobile measures. EPA reviewed the procedures that MDE used to develop its projected inventories, including the use of the MOBILE model, and found them to be reasonable. For details on EPA's analysis, see the Baltimore Serious Area Emissions Inventory TSD.

b. Area (Nonpoint) Source Measures

The area source measures Maryland used to meet RFP in the Baltimore Area include four Ozone Transport Commission (OTC) rules, Commercial and Consumer Products (Phases 1 and 2), Architectural and Industrial Maintenance Coatings (AIM), Portable Fuel Containers (PFC) (Phases 1 and 2), and Industrial Adhesives and Sealants. In the TSD for this action, EPA evaluated each of these measures and calculated the emission reductions for each measure, and finds the emission reductions Maryland claimed for these measures to be reasonable.

c. Non-Road Measures – NONROAD Model

The non-road mobile measures Maryland used to meet RFP in the Baltimore Area include Non-Road Small Gasoline Engines, Non-Road Diesel Engines (Tier I and Tier II), Marine Engine Standards, Emissions Standards for Large Spark Ignition Engines, and Reformulated Gasoline

Use in Non-Road Motor Vehicles and Equipment. Maryland used the EPA NONROAD model to calculate 2008, 2011, and 2012 RFP emission reductions for these measures. As discussed in the Baltimore Serious Area Emissions Inventory TSD, EPA reviewed the procedures that MDE used to develop its projected inventories, including the use of the NONROAD model, and found them to be reasonable.

d. Point Source Measures

Maryland took credit for one point source measure in its RFP plan, the Maryland Healthy Air Act (HAA). In the Baltimore Area, the sources covered by the HAA are Brandon Shores and H. A. Wagner in Anne Arundel County and C. P. Crane in Baltimore County. In the TSD for this action, EPA evaluated this measure and verified Maryland's calculated emission reductions from the affected sources covered by the HAA and found the emission reductions reasonable.

Table 8 summarizes the emission reductions achieved by each measure, as calculated by Maryland in the Serious Area Plan.

**Table 8. Summary of RFP Emission Reductions (tpd)**

Control Measure	2008		2011		2012	
	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>
<b>Mobile Onroad</b>						
MOVES model	52.86	158.43	62.23	181.35	66.59	192.33
<b>Area</b>						
OTC - Consumer Products Phase 1	3.70	0.00	3.77	0.00	3.79	0.00
OTC - Consumer Products Phase 2	0.00	0.00	0.46	0.00	0.46	0.00
OTC - AIM	6.03	0.00	6.19	0.00	6.19	0.00
OTC - PFC Phase 1	6.71	0.00	8.31	0.00	8.35	0.00
OTC - PFC Phase 2	0.00	0.00	0.60	0.00	0.60	0.00
OTC - Industrial Adhesives	0.00	0.00	2.63	0.00	2.64	0.00
Total Area reductions	16.44	0.00	21.96	0.00	22.03	0.00
<b>Nonroad</b>						

Control Measure	2008		2011		2012	
	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>
Nonroad Model	17.85	8.12	26.33	14.55	29.83	17.30
Railroads (Tier 2)	0.00	1.18	0.00	1.58	0.00	1.67
<b>Point</b>						
Healthy Air Act (HAA)	0.00	0.00	0.00	31.86	0.00	37.18
<b>Total</b>	<b>87.14</b>	<b>167.73</b>	<b>110.51</b>	<b>229.35</b>	<b>118.45</b>	<b>248.48</b>

Projected emissions for both VOC and NO<sub>x</sub> are well below the RFP target levels, as shown in Table 9. Therefore, EPA finds the Serious Area Plan demonstrated more than sufficient emission reductions to meet RFP for 2008, 2011, and 2012 and thus finds the RFP plan approvable.

**Table 9. Comparison of RFP Targets and Projected Controlled Emissions for the Baltimore Area (tpd)**

Description		2008		2011		2012	
		VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>	VOC	NO <sub>x</sub>
A	Projected Controlled Emissions	217.96	299.62	205.65	246.48	199.90	232.88
B	Target Level	238.00	343.81	223.72	333.49	220.38	328.49
<b>RFP is met if A &lt; B</b>		<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

EPA notes that Maryland was not required to demonstrate 2008 RFP, because EPA previously approved 2008 RFP for the Baltimore Area. *See* 75 FR 31709 (June 4, 2010). EPA required MDE only to update the 2008 target levels, so that they could be used to calculate the 2011 and 2012 target levels in the Serious Area Plan.

#### E. Contingency Measures for Failure to Meet RFP

##### 1. Requirement

Section 182(c) of the CAA requires a state with a moderate or above ozone nonattainment area to include in its SIP, among other things, sufficient additional contingency measures in its RFP plan

in case the area fails to meet any applicable milestone. *See* CAA section 182(c)(9). These contingency measures must be fully adopted control measures or rules, so that upon failure to meet a RFP milestone requirement, the state must be able to implement the contingency measures without any further rulemaking activities. If triggered, these contingency measures must achieve additional emission reductions of at least 3% of the adjusted baseline emissions. For more information on contingency measures, see the General Preamble to Title I of the CAA (57 FR 13512 (April 16, 1992)) and the Phase 2 Rule. To meet the requirements for contingency measure emission reductions, EPA allows states to use NO<sub>x</sub> emission reductions to substitute for VOC emission reductions in their contingency plans. Maryland discusses its contingency measures for failure to meet RFP in Section 12.3 of the Serious Area Plan.

EPA's May 26, 2015 determination that the Baltimore Area attained the 1997 8-hour ozone NAAQS suspends certain planning requirements, including contingency measures, for the 1997 8-hour ozone NAAQS for as long as the area continues to meet that NAAQS. 80 FR 29970. Considering the most recent ambient air quality monitoring data, the Baltimore Area continues to meet the 1997 8-hour NAAQS. Therefore, no contingency measures are required to address requirements in sections 172 or 182 of the CAA. *See* 40 CFR 51.918. However, as discussed in this section of this rulemaking action, EPA is proposing to approve the RFP contingency measures along with the serious area RFP plan in the Serious Area Plan, as SIP strengthening measures pursuant to section 110 of the CAA, as requested by MDE.

## 2. State Submittal and EPA Evaluation

Maryland's Serious Area Plan contains contingency measures for failure to meet the 2012 RFP

milestone. The Serious Area Plan relies on the excess emission reductions from the same measures used to meet the RFP targets in order to meet the contingency measure target. This is acceptable under EPA's early implementation policy, set out in the August 13, 1993 memorandum from G. T. Helms, entitled, "Early Implementation of Contingency Measures for Ozone and Carbon Monoxide (CO) Nonattainment Areas." Maryland chose to split the 3% contingency requirement equally between VOC and NO<sub>x</sub>. For details on the contingency target level calculations, see Tables 10 and 11, and for EPA's detailed analysis and evaluation of the 2012 RFP contingency measure requirement, see EPA's TSD supporting this rulemaking action.

**Table 10. 2012 RFP Contingency Measure Target Level Calculations**

Description		Formula	VOC	NO <sub>x</sub>
A	2011 Target Level		223.73	333.49
B	FMVCP/RVP Reductions Between 2011 And 2012		0.00	0.18
C	2011 Adjusted Base Year Inventory Relative To 2012	A – B	223.73	333.32
D	RFP Ratio		0.0150	0.0150
E	Emissions Reductions Required Between 2011 & 2012	C * D	3.36	5.00
F	RFP Target Level for 2012	C – E	220.38	328.49
G	Contingency, 1.5% VOC & NO <sub>x</sub>	0.015 * C	3.36	5.00
H	<b>2012 Contingency Target Level</b>	<b>F – G</b>	<b>217.02</b>	<b>323.49</b>

**Table 11. Comparison of the 2012 RFP Contingency Measure Target Levels versus Projected Controlled Emissions (tpd)**

Description		VOC	NO <sub>x</sub>
A	Projected Controlled Emissions	199.90	232.88
B	Contingency Target Level	217.02	323.49
<b>Contingency Requirement is met if A &lt; B</b>		<b>Yes</b>	<b>Yes</b>

As shown in Table 11, the Serious Area Plan achieved more than enough emission reductions to meet the contingency measure requirement for the 2012 milestone year for the Baltimore Area. Therefore, EPA proposes to approve Maryland's contingency measures from the Serious Area Plan as SIP strengthening measures.

## F. Transportation Conformity Budgets

### 1. Requirement

Transportation conformity is required by section 176(c) of the CAA. EPA's conformity rule requires that transportation plans, programs and projects conform to state air quality implementation plans and establishes the criteria and procedure for determining whether or not they do. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards. *See* 69 FR 40004 (July 1, 2004).

States must establish VOC and NO<sub>x</sub> MVEBs for each of the milestone years up to the attainment year and submit the mobile budgets to EPA for approval. Upon adequacy determination or approval by EPA, states must conduct transportation conformity analysis for their Transportation Improvement Programs (TIPs) and long range transportation plans to ensure highway vehicle emissions will not exceed relevant MVEBs. For budgets to be approvable, they must meet, at a minimum, EPA's adequacy criteria set out at 40 CFR 93.118(e)(4).

### 2. State Submittal and EPA's Evaluation

MDE discusses transportation conformity in Section 10 of the Baltimore Serious Area Plan. MDE, in consultation with the Baltimore Regional Transportation Board (BRTB), established MVEBs for 2012. MDE calculated the 2012 mobile emissions inventory using EPA's MOVES and the Highway Performance Monitoring System (HPMS) models. MDE describes its methods in Appendix E of the Baltimore Serious Area Plan.

The MVEBs are the amount of emissions allowed in the SIP for onroad motor vehicles; it establishes an emissions ceiling for the regional transportation network. The 2012 MVEBs for the Baltimore Area are 93.5 tpd NO<sub>x</sub> and 40.2 tpd VOC.

On November 23, 2015, as part of the adequacy process, EPA posted the availability of the 2012 MVEBs on EPA's website for the purpose of soliciting public comments.<sup>4</sup> The comment period for the Baltimore Area's 2012 MVEBs closed on December 23, 2015, and EPA received no comments. In a February 22, 2016 **Federal Register** notice, EPA notified the public that EPA found the 2012 RFP MVEBs in the Baltimore Serious Area Plan adequate for transportation conformity purposes. 81 FR 8711.<sup>5</sup> As a result of EPA's finding, the State of Maryland must use the 2012 MVEBs from the Serious Area Plan for future transportation conformity determinations.

The MVEBs which EPA has determined to be adequate are identical to the projected controlled 2012 onroad mobile source emissions for the Baltimore Area in the Serious Area Plan. In addition to the budgets being adequate for transportation conformity purposes, EPA found the procedures Maryland used to develop the MVEBs to be reasonable. For more information on EPA's analysis, see EPA's TSD available in the docket for this rulemaking. Because the 2012 RFP MVEBs are adequate for transportation conformity purposes and the methods MDE used to

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<sup>4</sup> See <https://www3.epa.gov/otaq/stateresources/transconf/adequacy.htm>.

<sup>5</sup> EPA's February 22, 2016 notification included an inadvertent error mentioning that the comment period on the Baltimore Area 2012 MVEBs closed November 23, 2015 instead of December 23, 2015. In fact, the comment period on EPA's website for the public to comment on the adequacy of the Baltimore Area's 2012 MVEBs was open for 30 days from November 23, 2015 through December 23, 2015, and EPA's website correctly includes the appropriate December 23, 2015 closing date. See <https://www3.epa.gov/otaq/stateresources/transconf/adequacy.htm>. Because the comment period was open for 30 days and because the public therefore had adequate time to comment on the 2012 MVEBs, EPA's incorrect reference in the February 22, 2016 Federal Register publication after the comment period closed was harmless and inadvertent error. Thus, the inadvertent error does not alter EPA's finding that the 2012 RFP MVEBs are adequate.

develop them are correct, the 2012 RFP MVEBs are approvable.

### **III. Proposed Action**

EPA has reviewed the RFP plan for the Baltimore Area, submitted in the Serious Area Plan, including updates to the 2008 RFP target levels previously SIP approved by EPA, the 2011 and 2012 RFP targets levels, control measures used to meet RFP, and contingency measures for failure to meet the 2012 RFP target, and found them to be approvable. In addition, EPA determined that MDE used acceptable techniques and methodologies to update the 2002 base year and 2008 projected inventories, and to develop the 2011 and 2012 milestone year projected inventories and found them approvable. Furthermore, EPA has found the Baltimore Area's 2012 MVEBs adequate for transportation conformity purposes and approvable. Therefore, EPA is proposing to approve the updates to the 2002 base year inventory, updates to the 2008 RFP plan and associated 2008 projected emissions inventory, the 2011 and 2012 RFP plan and associated projected emission inventories, the contingency measures for failure to meet 2012 RFP, and the 2012 MVEBs for the Baltimore Area submitted in MDE's July 22, 2013 Serious Area Plan. The other parts of the Serious Area Plan were withdrawn by Maryland. EPA is soliciting public comments on the issues discussed in this document. These comments will be considered before taking final action.

### **IV. Statutory and Executive Order Reviews**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided

that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule, pertaining to the Baltimore Area serious RFP plan, inventories, RFP contingency measures, and MVEBs, does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Ozone, Volatile organic compounds.

**Authority:** 42 U.S.C. 7401 et seq.

Dated: April 15, 2016.

Shawn M. Garvin,  
Regional Administrator,  
Region III.

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